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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,047	07/25/2001	Robert S. Daley	010278	7282

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Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

PHILPOTT, JUSTIN M

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/916,047

Applicant(s)

DALEY ET AL.

Examiner

Justin M Philpott

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-10,13-17,21-23 and 51-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-10,13-17,21-23 and 51-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. In the Amendment filed October 20, 2003, applicant has amended claims 7-10, 13-17, and 21-23 to correct minor informalities and to include further limitations in an attempt to overcome the prior art rejections, has canceled claims 1-6, 11, 12, 18-20 and 24-50, and has added new claims 51-56.

Response to Arguments

2. Applicant's arguments filed October 20, 2003 have been fully considered but they are not persuasive.

Specifically, applicant argues that Dalal fails to disclose a "selector entity" that receives frames from a first access point when a first threshold is reached, monitors frame selection by the first access point, and informs a second access point to send frames to the selector entity as allegedly recited in applicant's claims (e.g., elements most closely resembling those of the amended claim 7). However, claim 7 as amended does not recite the above limitation of receiving "frames from a first access point when a first threshold is reached". In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "frames from a first access point when a first threshold is reached") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the

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claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Thus, this argument is moot.

Further, applicant argues that Dalal fails to disclose a selector entity also assumes frame selection when a second threshold is reached and informs the second access point to propose frame selections as recited in applicant's claims (e.g., the amended claim 8). However, as discussed in the following office action, Dalal teaches a selector entity (e.g., SDU 310) assumes frame selection (e.g., via frame selection unit 311) when a second threshold is reached (e.g., when the signal strength received from a second of BS 101-103 exceeds that of a first of BS 101-103, or similarly, when the signal strength received from the first of BS 101-103 is less than that received from other BSs), and informs the second access point (e.g., BS) to propose frame selections for the first communication device (e.g., MS) and forwards the frame selections to the selector entity for monitoring thereby (e.g., see paragraph 0044 wherein Dalal specifies that frame selection units are located in all of BS 101-103). Thus, applicant's argument is not persuasive.

Further, applicant argues that Dalal fails to disclose a selector entity also determines whether the proposed frame selections are within a predetermined correctness threshold, and, if so, causes the second access point to assume frame selection as recited in the amended claims (e.g., the amended claim 9). However, as discussed in the following action, Dalal teaches the selector entity (e.g., SDU 310) determines whether frame selections from a second access point (e.g., BS) are within a predetermined correctness threshold (e.g., are within suitable signal strength range) and if so, causing the second access point (e.g., BS) to assume frame selections

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for the first communication device (see paragraphs 0029 and 0038 regarding handoff). Thus, applicant's argument is not persuasive.

Further, applicant argues that Dalal fails to disclose a system which yields handing off a mobile station between frame selectors, as opposed to between base stations, without losing any frame of information. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "handing off a mobile station between frame selectors, as opposed to between base stations, without losing any frame of information") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Thus, applicant's argument is moot.

Claim Objections

3. Claim 7 is objected to because of the following informalities: "the access points" (line 7) should be changed to, e.g., "the at least first access point" since a plurality of access points has not yet been definitively established in the claim; and "the first communication device" (line 10) should be changed to, e.g., "a first communication device" since a first of the plurality of communication devices has not been previously established in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 7-10, 13-17, 21-23 and 51-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,252,862 to Sauer et al. in view of U.S. Patent Application Publication No. 2002/0093931 by Dalal.

Regarding claims 7, 10, 17 and 51, Sauer teaches a voice over Internet VOIP system (e.g., FIG. 5) comprising: plural access points (e.g., 504, 506) communicating with plural wireless communication devices (e.g., mobile units, e.g. 502, 120, see also col. 3, lines 1-15) using a wireless communication device over-the-air protocol different from Internet protocol IP, each wireless communication device (e.g., 502, 120) transmitting frames of information, at least a first access point (e.g., BTS) undertaking selection functionality including handoff control (e.g., see col. 3, lines 3-15 regarding soft handoff). However, Sauer may not clearly specify selection functionality also including frame selection.

Dalal teaches a VOIP system (FIG. 3) wherein an access point (e.g., BS 101) undertakes selection functionality including frame selection (e.g., see SDU 310 comprising frame selection unit 311 and contained within BS 101 as well as paragraphs 0037-0042), wherein a frame selection unit is known to select frames from the highest quality signals for improved transmission (e.g., see paragraph 0031). By including frame selection means within an access point, as opposed to solely within a separate interface comprising frame selection such as in prior art FIG. 2 in Dalal, the system of Dalal provides improved frame selection which avoids problems caused by incompatibilities and redundancies among equipment produced by different

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manufacturers (paragraphs 0036 and 0037). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the teachings of Dalal to the system of Sauer in order to provide improved transmission quality by selecting the highest quality frames and to furthermore reduce incompatibility and redundancy between and among the equipment of different vendors.

Specifically, Dalal teaches a selector entity (e.g., selection and distribution unit SDU 310) is in communication with access points (e.g., 101, 102, 103) (see FIG. 3) and the selector entity (e.g., SDU 310) receives first communication device (e.g., MS 111, 112, 113 or 114) frames from the first access point (e.g., BS 101), monitors frame selection by the first access point (e.g., senses signal strength of BS 101, see paragraphs 0029 and 0038) for the first communication device, and informs, before handing off to (via control signals, see paragraph 0029), a second access point (e.g., BS 103) to send frames received thereby to the selector entity when a first and second threshold is reached (e.g., when the signal strength of BS 101 is unacceptably weak, and when signal strength of BS 103 is an acceptable level).

Regarding claims 8, 13, 14, 21, 22, 52 and 53, Dalal teaches a selector entity (e.g., SDU 310) assumes frame selection (e.g., via frame selection unit 311) when a second threshold is reached (e.g., when the signal strength received from a second of BS 101-103 exceeds that of a first of BS 101-103, or similarly, when the signal strength received from the first of BS 101-103 is less than that received from other BSs), and informs the second access point (e.g., BS) to propose frame selections for the first communication device (e.g., MS) and forwards the frame selections to the selector entity for monitoring thereby (e.g., see paragraph 0044 wherein Dalal specifies that frame selection units are located in all of BS 101-103).

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Regarding claims 9, 15, 16, 18, 23 and 54, Dalal teaches the selector entity (e.g., SDU 310) determines whether frame selections from a second access point (e.g., BS) are within a predetermined correctness threshold (e.g., are within suitable signal strength range) and if so, causing the second access point (e.g., BS) to assume frame selections for the first communication device (see paragraphs 0029 and 0038 regarding handoff).

6. Claims 55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Sauer et al. in view of Dalal, further in view of applicant's admitted prior art.

Regarding claims 55 and 56, Sauer in view of Dalal teach a system and method discussed above regarding claims 7 and 10, however, may not specifically disclose an over-the-air protocol different from Internet protocol is implemented. However, applicant admits that requiring a wireless telephone to use voice over Internet protocol diminishes over-the-air capacity because such a protocol is not designed to maximize such capacity (specification, page 2, paragraph 0006). Applicant continues, disclosing that a typical packet in the wireless telephone over-the-air protocol IS-95 is less than the size of a single packet header employed in a typical Internet protocol. Thus, at the time of the invention one of ordinary skill in the art would be motivated to implement a protocol other than Internet protocol for a wireless telephone not requiring Internet protocol for system compatibility, since an alternative over-the-air protocol such as IS-95 is significantly more efficient as admitted by applicant. Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to implement a protocol other than Internet protocol in the system of Sauer in view of Dalal when Internet protocol is not required for

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system compatibility since applicant discloses that it is well known in the art that an over-the-air protocol other than Internet protocol is significantly more efficient.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M Philpott whose telephone number is 703.305.7357. The examiner can normally be reached on M-F, 9:00am-5:00pm.

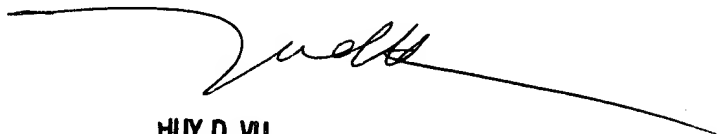
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on 703.308.6602. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9314.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.305.4750.



Justin M Philpott



HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600